

BQC-93-049

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To: End Stage Renal Dialysis Facilities ESRD 5

From: Susan Wood, Deputy Director
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RE: Immunizations and Tuberculosis Screening of Employees and Patients

The State of Wisconsin currently has over 2,000 chronic renal dialysis patients whose impaired immune status due to their medical condition, puts them at a increased risk of acquiring communicable diseases. Health care employees who work in these facilities are also at increased risk of acquiring occupationally related communicable diseases. Therefore, the Wisconsin Division of Health recommends that the following employee and patient immunizations and tuberculosis screening guidelines be implemented to reduce the risk of disease transmission in these groups.

Employees:

1. Annual influenza vaccination
2. Hepatitis B vaccine
3. Annual Mantoux Tuberculin skin tests (required for all hospital employees by OSHA)

Patients:

1. Annual influenza vaccination
2. Hepatitis B vaccine
3. One time pneumococcal vaccination
4. An initial two step Mantoux tuberculin skin test. The medical director should consider an anergy panel for those who do not test positive. Those patients who react to an anergy panel should be rescreened annually with a one step Mantoux skin test.

These guidelines are consistent with the recommendations of the Centers for Disease Control and Prevention (CDC) and the Immunization Practices Advisory Committee (ACIP). Enclosed are guidelines for the provision of each vaccine and a protocol for tuberculosis screening.

For further information or clarification please call Dawn Tuckey at (608) 266-8621 or Thomas Haupt of the Bureau of Quality Compliance at (608) 267-1445.

Influenza vaccine: Given annually, optimally between mid October and mid November to assure adequate antibody status during the peak influenza season (winter).

Pneumococcal vaccine: Normally given on a one time basis. Revaccination should be considered for persons shown to lose protection rapidly, such as persons with nephrotic syndrome, kidney failure, or transplants, who had received the current vaccine 6 or more years ago.

Hepatitis B vaccine: Recommended for hemodialysis patients and staff. Patients should be vaccinated early in the course of their disease. Those who are vaccinated prior to beginning dialysis treatments are more likely to respond to the vaccine. The Occupational Safety and Health Administration (OSHA) requires that hepatitis B vaccine be offered free of charge to employees at risk of exposure to blood and other potentially infectious materials. Post vaccination testing for serological response is recommended for dialysis patients and staff 1 to 6 months after completion of the vaccine series. Routine serological testing to determine the need for booster doses of vaccine is recommended for dialysis patients only. Dialysis patients should be tested annually and should be given booster doses of vaccine when their hepatitis B surface antibody levels decline to <10 mIU/ml.

Mantoux tuberculin skin tests: Utilize 5 tuberculin units (TU) of Purified Protein Derivative (PPD) intradermal, and read for induration 48 to 72 hours after. Patients who do not react with a >10mm induration to the first test should receive a second test administered in the same manner 7 days after reading the first test. Patients who do not react to the second test should be administered an anergy panel. Non-reaction to the anergy panel indicates that the patient does not have an immune system capable of reacting to certain known antigens, and does not assure that the patient does not have a prior tuberculosis infection. These patients must be monitored closely for signs and symptoms of TB, with chest x-rays being done to rule out TB. Patients who react to an anergy panel should be rescreened annually for TB with a one step Mantoux skin test. Employees without a known immune deficiency should be screened with a one step Mantoux skin test. Those employees who do not react should be rescreened annually using the same method. This is mandated by OSHA regulations for all hospital employees. Patients and employees who convert to a positive skin test should be placed on appropriate chemoprophylactic therapy.

Anergy panel: A skin test administered by the same method as the Mantoux tuberculin skin test utilizing two delayed-type hypersensitivity (DTH) skin test antigens that include: Candida Albicans, mumps or tetanus toxoid. This companion skin test of the Mantoux PPD is utilized when a patient has a known or suspected immune deficiency which may result in their inability to mount a DTH response to PPD. Any amount of induration to the DTH antigens is considered evidence of DTH responsiveness. Persons with a positive DTH response but not to PPD tuberculin are not considered to be infected with Mycobacterium tuberculosis.